# Habitat Conservation Plan
# Single-Family Residential Development Project
# 2049 Andre Avenue (APN 074-413-017),
# Los Osos, San Luis Obispo County, CA

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## Executive Summary

This Habitat Conservation Plan provides a framework within which the proposed residential construction project at 2049 Andre Avenue, Los Osos, may be carried out with full consideration and attention given to the presence of, and take of, the Morro shoulderband snail (*Helminthoglypta walkeriana*; MSS), a terrestrial invertebrate federally listed as endangered. Los Osos is an unincorporated community in the western portion of San Luis Obispo County. The requested term of the incidental take permit is 10 (ten) years. The single-family residence to be constructed will be approximately 2,260 square feet [$ft^2$] (Phase 1; all Phase 2 components would increase the footprint to 2,971 $ft^2$) and will be sited on an existing legal parcel of approximately one acre (43,628 $ft^2$).

Take of MSS and its habitat will arise from the construction of the three main components of the development project:

1. Site preparation and construction of the main house, along with possible later additions.
2. Construction of a 226-foot long driveway and parking area of approximately 1,730 $ft^2$.
3. Installation and maintenance of a septic system.

Although every effort has been made to minimize take of MSS and its habitat through an aware and sensitive design, take of MSS likely cannot be avoided. Minimization measures will be implemented and mitigation provided. These efforts are described in the "Conservation Strategy" and consist of the capture and relocation of any MSS found in areas of construction, protection of MSS habitat, and payment of an in-lieu fee to fund recovery tasks elsewhere. This Plan also describes how on-going project activity and conservation efforts will be monitored by an outside professional, and provides for data collection and full reporting to United States Fish and Wildlife Service (Service).

## Section 1 Introduction and Background

### Overview and Background

The project being proposed is the construction of a single-family residence at 2049 Andre Avenue, Los Osos, California. The house will sit on the western, veldt grass-dominated portion of the parcel (refer to Figure 3). The project would be constructed in conformance with County zoning and building codes. The property is located outside the current Los Osos building moratorium area, and the project is currently in the planning and permitting stage.

Due to cost considerations, the applicant would like to implement this project in 2 phases (see under "Project Description"). Plans for Phase 1 only will be submitted first to the San Luis Obispo County Planning and Building Department; plans for Phase 2 would be submitted at a later date. It is requested that the Incidental Take permit include approval for this phased construction, so that when and if plans for Phase 2 are submitted, the Planning and Building Department may review them with full confidence that all measures necessary to protect MSS and its habitat have been reviewed and approved by the U.S. Fish and Wildlife Service (USFWS). When, and if, Phase 2 construction goes forward, the applicant will agree to notify the Service and engage either the same or a new Service-approved biologist to oversee the construction and implementation of the already existing HCP and ITP.

A brief history of the project under its current ownership begins with the approval of a Minor Use Permit/Coastal Development Permit (#DRC2005-00142) effective May 1, 2009. Essential to this approval was the issuance of a Mitigated Negative Declaration (MND) on March 5, 2009. In the review leading up to the MND, it was determined that an Environmental Impact Report was not necessary for

this project. Approval of the Minor Use Permit was also dependent on the applicant meeting the conditions of approval specified by the Planning Commission, including all those measures designed to address biological resources, cultural resources, public resources/utilities, transportation/circulation, and water. For most of these environmental issues, there has been no change since May of 2009 and the conditions of approval remain the same. However, as described below, the situation has changed regarding biological resources—specifically, MSS has been found on the property--and greatly expanded efforts are now required to obtain continued approval to develop the property. These efforts are spelled out in this Habitat Conservation Plan (Plan).

Efforts to ascertain the presence of MSS on the property had been undertaken previously. Beginning in 2000, SWCA Environmental Consultants (SWCA [previously known as Morro Group, Inc.]) conducted three MSS investigations on the parcel. The first investigation consisted of a habitat assessment conducted on July 3, 2000. The habitat assessment confirmed the presence of suitable MSS habitat and one Class B MSS shell on the parcel. The second investigation consisted of a five-survey protocol series conducted in 2003. The 2003 surveys found no evidence of MSS presence, and a concurrence determination was prepared by the USFWS for the proposed project in 2004. The applicant did not construct the proposed project before the expiration of the 2004 concurrence determination; therefore, he retained Morro Group to conduct a second series of protocol surveys in 2007. MSS was not identified on the parcel in 2007 and USFWS issued a non-Federal no-take concurrence for the project in December 2007. The project was delayed until 2013, when the applicant requested a permit extension from the County of San Luis Obispo (County) Planning and Building Department. In order to process the permit extension, the County, in coordination with the Service, requested a third round of MSS surveys to confirm the presence/absence of MSS on the parcel. This survey identified low numbers of live MSS on the parcel, and confirmed the presence of suitable MSS habitat.

## Permit Holder/Permit Duration

The Incidental Take permit (ITP) holder will be Richard W. Phillips, owner of the property at 2049 Andre Avenue. It is requested that the ITP be granted for a period of ten years, which is estimated to be enough time to ensure completion of Phases 1 and 2 of the residential construction project (see under "Project Description" for explanation of 2-phase approach).

## Permit Boundary/Covered Lands

The proposed covered area at 2049 Andre Avenue is a one acre parcel legally described as APN 074-413-017. This parcel is zoned for residential use. Figure 1 shows the general location of the parcel within the California Central Coast area. Figure 2 shows the lot within the subdivision of which it is a part. Figure 3 shows the boundaries of the various vegetation groupings/MSS habitat, the area of the proposed development, and the location of each of the three sightings of live MSS during the 2013 survey. Figure 3 shows that there is adequate cover (maritime chaparral) on the eastern portion of the parcel to serve as a potential relocation site for live MSS found in the construction areas. Photos 3 and 4 clearly show that the main building site for the house is on a sparsely covered, veldt grass-dominated area that provides only limited shelter for MSS.

## Covered Species

The only species addressed in this HCP is the federally endangered MSS, a terrestrial invertebrate species endemic to Los Osos and its immediately surrounding area.

## Regulatory Framework

### Federal Endangered Species Act

The USFWS's responsibilities include administering the Endangered Species Act of 1973, as amended (Act). Section 9 of the Act prohibits the take of any federally-listed endangered or threatened species. Take is defined in Section 3(18) of the Act as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." Service regulations in 50 CFR 17.3 further define harm to include significant habitat modification or degradation that actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering. Harassment is defined as an intentional or negligent action that creates the likelihood of injury to wildlife by annoying a species to such an extent that its normal behavioral patterns (e.g., breeding, feeding, or sheltering) are significantly disrupted. The Act provides for civil and criminal penalties for the unlawful taking of listed species. Exemptions to the prohibitions against take may be obtained through coordination with the Service in two ways. First, if a project is to be funded, authorized, or carried out by a Federal agency and may affect a listed species, the Federal agency must consult with the Service pursuant to section 7(a)(2) of the Act. Secondly, in order to comply with Federal law, private individuals and State and local or other entities who propose an action that is likely to result in the take of federally listed species and for which there is no Federal nexus, may achieve compliance with the Act by applying for an Incidental Take permit pursuant to section 10(a)(1)(B) of the Act. Such permits are issued by the Service when take is not the intention of and is incidental to otherwise legal activities. An application for an ITP must be accompanied by a Habitat Conservation Plan (HCP). The regulatory standard under section 10(a)(1)(B) of the Act requires that the effects of authorized incidental take be minimized and mitigated to the maximum extent practicable. Under section 10(a)(1)(B) of the Act, a proposed action also must not appreciably reduce the likelihood of survival and recovery of the species in the wild. Adequate funding of identified actions to minimize and mitigate impacts must also be ensured.

Section 7(a)(2) of the Act requires that Federal agencies ensure that their actions, including permit issuance, do not jeopardize the continued existence of listed species or destroy or adversely modify listed species' critical habitat. Pursuant to 50 CFR 402.2, "Jeopardize the continued existence of…" means to engage in an action that would reasonably be expected, directly or indirectly, to appreciably reduce the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species. Issuance of an Incidental Take permit by the Service, pursuant to section 10(a)(1)(B) of the Act, constitutes a Federal action that is subject to the requirements of section 7. As such, as a Federal agency issuing a discretionary permit, the Service must prepare an internal consultation to address its action.

### Section 10(a)(1)(B) ITP Process

The process for obtaining an ITP has three primary phases: (1) development of the HCP; (2) processing of the permit; and (3) post-issuance compliance. During development of the HCP, the project applicant prepares a plan that integrates the proposed project or activity with protection of listed species. Every HCP submitted in support of an ITP application must include the following information: (1) those impacts likely to result from the proposed taking of the species for which permit coverage is requested; (2) measures that will be implemented to monitor, minimize, and mitigate impacts; funding that will be made available to undertake such measures; and procedures to deal with unforeseen circumstances; (3) alternatives to the proposed action that would not result in take; and (4) any additional measures Service may require as necessary or appropriate for purposes of the Plan.

During the post-issuance phase, the permittee and other responsible entities implement the HCP, and the Service monitors the permittee's compliance with the HCP as well as the long-term progress and success of the HCP. The public is notified of permit issuance by means of the Federal Register. The HCP development phase concludes and the permit processing phase begins when a complete application package is submitted to the appropriate permit-issuing office. A complete application package consists of 1) an HCP, 2) an Implementing Agreement (IA) if applicable, 3) a permit application, and 4) a $100 fee from the applicant. The Service must also publish a Notice of Availability of the HCP package in the Federal Register to allow for public comment. The Service also prepares an Intra-Service Section 7 Biological Opinion, and prepares a Set of Findings, which evaluates the Section 10(a)(1)(B) permit application within the context of permit issuance criteria (see below). An Environmental Action Statement, Environmental Assessment, or Environmental Impact Statement, one of which has gone out for a 30-day, 60-day, or 90-day public comment period, serves as the Service's record of compliance with the National Environmental Policy Act (NEPA). An Implementing Agreement is required for HCPs unless the HCP qualifies as a low-effect HCP. A Section 10(a)(1)(B) Incidental Take permit is granted upon a determination by the Service that all requirements for permit issuance have been met. Statutory criteria for issuance of the permit specify that: (1) the taking will be incidental; (2) the impacts of incidental take will be minimized and mitigated to the maximum extent practicable; (3) the taking will not appreciably reduce the likelihood of survival and recovery of the species in the wild; (4) the applicant will provide additional measures that the Service requires as being necessary or appropriate; and (5) the Service has received assurances, as may be required, that the HCP will be implemented.

During the post-issuance phase, the permittee and any other responsible entities will implement the HCP. The Service will monitor permittee compliance with the HCP as well as its long-term progress and success. The public is notified of permit issuance through publication in the Federal Register.

## National Environmental Policy Act

The purpose of the National Environmental Policy Act (NEPA) is two-fold: to ensure that Federal agencies examine environmental impacts of their actions (in this case deciding whether to issue an Incidental Take permit), and to utilize public participation. NEPA serves as an analytical tool on direct, indirect, and cumulative impacts of the proposed project alternatives to help the Service decide whether to issue an Incidental Take permit (ITP or section 10(a)(1)(B) permit). Compliance with NEPA is required of the Service for each HCP as part of the Incidental Take permit application process.

## National Historic Preservation Act

All Federal agencies are required to examine the cultural impacts of their actions (e.g., permit issuance). This requires consultation with the State Historic Preservation Office and appropriate American Indian tribes. All Incidental Take permit applicants are requested to submit a Request for Cultural Resources Compliance form to the Service. To complete compliance, the applicant may be required to contract for cultural resource surveys and possibly provide mitigation.

## Other Relevant Laws and Regulations

- **California Endangered Species Act:** The California Endangered Species Act (CESA) generally parallels the main provisions of the Act and provides for the designation of native species or subspecies of plants, fish, and wildlife as endangered or threatened. Section 2080 prohibits the take of state-listed endangered or threatened species but allows for the incidental take of such species as a result of otherwise lawful development projects under section 2081(b)

and (c). The Morro shoulderband snail is not listed under CESA; therefore, a state incidental take permit is not required for the project at 2049 Andre Avenue.

- **California Environmental Quality Act:** The California Environmental Quality Act (CEQA) is a state statute that is generally analogous to NEPA on the Federal level in requiring the completion of an environmental review for projects that may impact environmental resources. It requires public agencies to review the environmental impacts of proposed projects, prepare and review environmental impact reports, negative declarations, or mitigated negative declarations, and to consider feasible alternatives and mitigation measures that would substantially reduce significant adverse environmental effects. It applies to a broad range of environmental resources including any state and federally listed wildlife and plant species, as well as sensitive natural communities. Impacts to such species and natural communities must be evaluated under CEQA. The County of San Luis Obispo (County) is the local (i.e., lead) agency responsible for conducting CEQA review and ensuring compliance for projects in the unincorporated community of Los Osos. As such, they will evaluate the 2049 Andre Avenue development application and ensure compliance with CEQA. Impacts to the Morro shoulderband snail represent one aspect of a CEQA review; however, the potential for impacts to other environmental resources is also reviewed as part of the CEQA compliance process.

- **California Coastal Act of 1976:** A California voter initiative, Proposition 20 (i.e., the Coastal Zone Conservation Act), passed in 1972, creating the California Coastal Commission (Commission). It was later made permanent through the passage of the California Coastal Act of 1976. The Commission is a state environmental agency charged with ensuring that all development within California's coastal zone (CZ) is consistent with the provisions of the Coastal Act of 1976. Commission jurisdiction within the CZ is broad and applies to both private and public entities and addresses almost all types of development activities inclusive of division of land, changes in the intensity of use of state waters, and of public access to the waters. The regulatory role of the Commission is facilitated through its review of development projects and the issuance of Coastal Development Permits (CDP) that typically include conditions of approval that, if met, will bring the development into compliance with the Coastal Act. In circumstances where a Local Coastal Program (LCP) has been prepared by a local agency and certified by the Commission, it is, in effect, the environmental review. In such cases, the issuance of a CDP is the responsibility of the local agency. The Commission retains ultimate oversight and responsibility for compliance through an appeal process. The CZ encompasses waters three miles seaward from the coastline and generally extends inland 1,000 yards from the mean high tide line except in developed urban areas where the boundary is often less than 1,000 yards. In significant estuarine habitat and recreational areas the CZ extends inland to the first major ridge line, or five miles from the mean high tide line. By virtue of its proximity to the Morro Bay Estuary, the entire community of Los Osos, including the 2049 Andre Avenue site, lies within the CZ. One of the primary provisions of the Coastal Act is to preserve, protect, and enhance environmentally sensitive habitat areas (ESHA). Section 30107.5 of the Coastal Act defines an ESHA as "Any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments."

- **San Luis Obispo County Local Coastal Program:** A LCP prepared by the County of San Luis Obispo and certified by the Commission, is in effect for areas of San Luis Obispo County located within the CZ. The County is the lead agency with regard to Coastal Act compliance and is responsible for reviewing the 2049 Andre Avenue project for compliance with their LCP and for issuing a Minor Use Permit/CDP for the project.

# Section 2 Project Description and Covered Activities

## Project Description

The applicant proposes to construct the project in two phases (Appendices A and B). The first phase would include construction of the driveway, parking area, septic system, and main residence. The proposed building envelope includes sufficient space for both phases of the project and includes 0.38 acre (16,556 square feet [$ft^2$]) of the one acre parcel. As planned, the first phase of construction would be designed around an existing dirt path that meanders around several coast live oak trees (*Quercus agrifolia*) and maritime chaparral, terminating at the gravel parking area. The residence would be constructed just west of the parking area and the septic system would be sited between the residence and parking area. A 2.5-foot high by 135-foot long retaining wall would be constructed along the southern boundary of the parking area, septic system, and residence. A significant amount of earth must be removed and replaced with seismically stable soil to provide a suitable building pad for the house (including the possible Phase 2 addition), driveway and parking area. The driveway has been sited to minimize impacts to the native vegetation.

The second phase of the project would be constructed if funding becomes available. While the precise timing is difficult to predict, it would be within the ten-year permit term. If constructed, the second phase may include one or both of an attached third bedroom and an attached two-car garage; both spaces would be located to the west-northwest of the main residence, opposite one another.

## Covered Activities

Especially relevant for this property will be the habitat-disturbing activities, the most significant of which will be the complete removal and subsequent replacement of a large portion of earth (under the future location of the house, parking area, and driveway) in order to achieve a suitable building pad as the present soil is seismically unsuitable and not firm enough for concrete footings. Other ground-disturbing activity includes grading; excavating for concrete pours, pipe-laying, etc.; mowing of nonnative grass (usually by "weed wacking"); and brush and/or debris clearing and removal associated with required hazard abatement/defensible space requirements. It is not envisioned that much new landscaping will be installed on the parcel, because the natural vegetation that will surround the house is lush and scenic. However, as specified by the County's Minor Use Permit, new plantings of coast live oak and Morro manzanita (*Arctostaphylos morroensis*) will be required to mitigate for either their complete removal or their close proximity to disturbed ground. These plantings, and the follow-up care required to ensure their survival, could disturb MSS habitat and possibly result in take of MSS present in the area. Once the foundation is established and above-ground work begins, the normal movement of personnel, equipment and vehicles could result in take of MSS.

Effects of Phase 2 construction would be similar to that of Phase 1 except that a seismically-stable building pad, grading, and installation of a septic system would have been already completed. Basically, the only ground-disturbing activity required will be trenching into the replacement ground for the foundation and installation of plumbing.

# Section 3 Environmental Setting and Covered Species

## Environmental Setting

### Climate

The community of Los Osos experiences a coastal Mediterranean climate characterized by long, dry summers and short, wet, mild winters. Fog is common during the late spring and summer months and moderates summer temperatures. Temperatures range from 48° Fahrenheit (F) to 69° F during the summer, with an average of 58° F and from 42° F to 66° F during the winter months, with an average temperature of 53° F. On average the warmest month is October and the coolest month is January. Rainfall is highly variable within and between winter seasons with an average of 49 days with measurable precipitation annually. The average annual precipitation in Los Osos is approximately17 inches with most of the precipitation occurring from November to April and highest rainfall occurring in February.

### Topography/Geology

The parcel is found within an area of rolling, stabilized, pre-Flandrian aged dunes located at the southern end of the Morro Bay Estuary. Underlying soils consist of well-drained sandy loam in the Baywood fine sand (2 to 9 percent slopes) series (NRCS 1984). The site is gently sloping. Elevation for Los Osos in general is approximately 131 feet above mean sea level.

### Hydrology/Streams, Rivers, Drainages

No streams, rivers, or drainages occur on the subject parcel. The parcel occurs within the southwestern region of the Morro Bay watershed and is located approximately 0.6 miles from the southern shore of the Morro Bay Estuary. The site lies within a watershed area that drains directly into the Morro Bay Estuary. Surface runoff is conveyed across the parcel towards the north.

### Existing and Surrounding Land Uses

The parcel is undeveloped. The property slopes gently to the north, and supports coast live oak trees, maritime chaparral, non-native grassland, and small patches of dune scrub-associated species (refer to Figure 3, Photos). The vegetative cover on the parcel includes an overstory dominated by coast live oak trees, maritime chaparral, and veldt grass (*Ehrharta calycina*). The habitats on the parcel have been subject to on-going but infrequent disturbance by adjacent residential uses, off-road vehicle use, and weed abatement activities. Native plant species observed on the parcel include Morro manzanita, several very old Arroyo de la Cruz manzanita (*Arctostaphylos cruzensis*), coast live oak, coyote brush (*Baccharis pilularis*), buckbrush (*Ceanothus cuneatus*), black sage (*Salvia mellifera*), telegraph weed (*Heterotheca grandiflora*), rushrose (*Helianthemum scoparium*), horkelia, mock heather (*Ericameria ericoides*), and California croton (*Croton californicus*). Non-native or exotic species observed include veldt grass, narrow-leaved ice plant (*Conicosia pugioniformis*), ripgut brome (*Bromus diandrus*), and other common exotics.

The property is bordered to the north, south, and west by single-family residences, and by Andre Avenue to the east. The adjacent single family residences and associated development are consistent with the semi-rural setting in the area. These residences include landscape areas and patches of native vegetation along the borders. The residence to the west of the subject parcel supports unmaintained veldt grass with remnant dune scrub vegetation and debris piles. Most of the homes in the area have chosen to maintain the natural vegetation as their primary landscaping, with fencing kept to a minimum; this is also the

applicant's intention. Except along the back (west) side of the parcel, where there is a wire fence, there is very little fencing or non-native vegetation separating adjacent parcels, so that there is a continuous run of native, undisturbed vegetation covering 2049 Andre Avenue and its adjacent parcels, as well as along the entire length of Andre Avenue.

## Covered Species

The subject of this HCP is the Morro shoulderband snail, also known as the banded dune snail. This section summarizes the limited body of biological and ecological information currently available for the species, including its status, ecology, and range, and, as pertains to the project that is the subject of this HCP, its distribution on the parcel.

## Status and Distribution of the Morro Shoulderband Snail

The Morro shoulderband snail is a native gastropod endemic to the Los Osos area of western San Luis Obispo County. It was listed by the Service as endangered on December 15, 1994 (59 FR 64613; Service 1994). The original listing recognized two subspecies or interspecific variations of the Morro shoulderband snail, *Helminthoglypta walkeriana* and *H. walkeriana* var. *morroensis*. At the time of listing *H. walkeriana* and *H. w. morroensis* (= *H. w.* var. *morroensis*) were classified as a single species under the taxonomic classification prescribed in Roth (1985). A recent re-examination of the taxonomic status of the two variants by Roth and Tupen (2004) resulted in their classification as separate species, *H. walkeriana* (Hemphill 1911), the Morro shoulderband snail; and *H. morroensis* (Hemphill 1911), the Chorro shoulderband snail. At the time of the listing, the range of *H. walkeriana* was described as being restricted to sandy soils of coastal dune and coastal sage scrub communities near Morro Bay and included areas south of Morro Bay, west of Los Osos Creek, and north of Hazard Canyon. The current known range is slightly expanded and encompasses approximately 7,700 acres, extending from Morro Strand State Beach in northern Morro Bay southward to Montaña de Oro State Park and inland to at least Los Osos Creek in eastern Los Osos (Roth and Tupen 2004; Service 2006). In June 2004, based on the preliminary findings of Roth and Tupen, the Service issued a position statement announcing that the unintended protection of *H. morroensis* under the Act would be discontinued. Protection under the Act is still provided for *H. walkeriana*, the species that is restricted to sandy soil substrates in and around the community of Los Osos.

A recovery plan for the species, *Recovery Plan for the Morro Shoulderband Snail and Four Plants from Western San Luis Obispo County, California*, was completed on September 26, 1998 (Service 1998). In the plan, four Conservation Planning Areas are identified in which conservation and habitat protection efforts will be focused to facilitate the recovery of the Morro shoulderband snail and the four plant species also addressed in the plan. Critical habitat for Morro shoulderband snail was designated on February 7, 2001 (66 FR 9233) (Service 2001). The designation includes three separate units consisting of a total of 2,566 acres of coastal dune, coastal dune scrub, and maritime chaparral habitats in and around the community of Los Osos and the Morro Bay Estuary (Service 2001). Most recently, a five-year status review for the Morro shoulderband snail was prepared and issued on September 11, 2006 (Service 2006).

## Species Taxonomy and Description

The Morro shoulderband snail belongs to the phylum Mollusca, class Gastropoda, subclass Pulmonata, order Stylommatophora, family Helminthoglyptidae, genus *Helminthoglypta*, subgenus *Charodotes*, species *walkeriana*. It was first described in Hemphill (1911) as *Helix walkeriana* from specimens collected from habitat in "San Luis Obispo, Cal." but reassigned to the genus *Helminthoglypta* by subsequent malacologists (Field 1930; Pilsbry 1939; Roth 1985). The genus *Helminthoglypta* currently

contains three subgenera comprising 100 or more species and subspecies with individual ranges located between southwestern Oregon and Baja California, and from the Sierra Nevada and Mojave Desert westward to the Pacific coast, including islands off Baja California and California. In San Luis Obispo County, the genus is represented by six species in two subgenera, *Helminthoglypta* and *Charodotes*. The subgenus *Helminthoglypta* includes two species, *Helminthoglypta cuyama* (Cuyama shoulderband snail) and *Helminthoglypta umbilicata* (Big Sur shoulderband snail), and the subgenus *Charadotes* includes four species: *Helminthoglypta walkeriana* (Morro shoulderband snail), *H. carpenteri*, (San Joaquin shoulderband snail), *H. fieldi* (surf shoulderband snail*)*, and the recently named *H. morroensis* (Chorro shoulderband snail). The shell of the Morro shoulderband snail is described as umbilicated, globose, reddish brown to chestnut in color but thin and slightly translucent (Hemphill 1911; Roth 1985). The shell has five to six whorls and a single, narrow (2 to 2.5 mm [0.08 to 0.1 in.]), dark spiral band on the "shoulder" with thin light yellowish margins above and below. Sculptural features of the shell include incised spiral grooves, spiral and transverse striae that give the surface a checkerboard appearance, and papillae at the intersections of some of the striae (Service 1994). Adult shell dimensions range from 18 to 29 mm (0.7 to 1.1 in.) in diameter and from 14 to 25 mm (0.6 to 1.0 in.) in height (Roth 1985).

Shoulderband snails can be distinguished from the sympatric non-native European garden snail (*Helix aspersa*) and cellar glass snail (*Oxychilus cellarius*) by the presence of an umbilicus and the single narrow, dark brown spiral band on the "shoulder" of the shell. *Helix aspersa* lacks an umbilicus and has a multi-band, marbled pattern on the shell. An umbilicus is present in *O. cellarius*, however, the shell lacks any dark banding. Among Helminthoglyptid snails (subgenera *Helminthoglypta* and *Charodotes*) that occur in San Luis Obispo County, species can generally be distinguished by shell morphology, however, the shell morphology, ecological associations, geographic isolation, and analysis of soft tissue are used for more definitive classification.

Two other *Helminthoglyptid* species occur within the known range of the Morro shoulderband snail; the Big Sur shoulderband snail (*H.* [*H.*] *umbilicata*) and the Chorro shoulderband snail (*H.*[*C.*] *morroensis*). The Big Sur shoulderband snail occurs from the Monterey Peninsula in Monterey County south into northern Santa Barbara County and is common in San Luis Obispo County from Atascadero and San Luis Obispo west to the coast, including the range of the Morro shoulderband snail. *Helminthoglypta umbilicata* and *H. walkeriana* occur sympatrically at many locations and specimens of each have been found in similar habitat and in relatively close proximity to each other (Dugan, personal observation 2005). *Helminthoglypta walkeriana* can be distinguished from *H. umbilicata* by its more globose shape, the presence of incised striae, papillations over all or most of the body whorl, and half or more of the umbilicus covered by the apertural lip (Roth 1985). *H. umbilicata* tends to have a more depressed shell shape with a shinier, malleated surface and little or no occlusion of the umbilicus. *Helminthoglypta walkeriana* and *H. morroensis* were elevated to separate full species status based on differences in soft tissue, shell morphology, and differing habitat associations. The shell of *H. morroensis* can be distinguished from *H. walkeriana* by its more depressed shape (ratio of shell height to shell width), larger, less occluded umbilicus, more profusely granulated surface, and weak to absent incised spiral grooves on the body whorl (Tupen and Roth, 2005). Until recently the two species were not known to occur sympatrically, with *H. walkeriana* occurring only on Baywood fine sand soils and *H. morroensis* being associated with clay or serpentine soils; however, in 2005 the shells of both species were collected at a location with Briones-Tierra complex soils near the northeastern extent of the suspected range of *H. walkeriana*, indicating some level of sympatry (Dugan, personal observation 2005). During 2007 the shells of both species were also collected at two locations with Baywood fine sand soils within the City of Morro Bay (Dugan personal observation).

## Natural History

Despite increased attention due to its status as a federally endangered species, relatively little is known about the demographics and ecology of the Morro shoulderband snail. In its native habitat on Baywood fine sandy soils, the Morro shoulderband snail is typically found in the accumulated leaf litter and the undersides of lower branches of shrub species of coastal dune scrub. The species is associated with Baywood series sandy soils that support coastal dune, coastal dune scrub, and open maritime chaparral plant communities in the Los Osos and Morro Bay region of Central California. Morro shoulderband snails typically inhabit dense, shrubby, or prostrate vegetation that has considerable contact with the ground. The early successional stages of these native plant communities are thought to offer more favorable habitat than mature stands, which may have branches that are too high off the ground to offer good cover (Roth 1985). Within such habitat, Morro shoulderband snails typically occupy shaded areas with accumulated plant litter or the undersides of low shrub branches. These areas provide a microclimate that moderates temperature and moisture loss, and provides refuge from the desiccating effects of wind. It has been suggested that vegetation on north-facing slopes is slightly more dense and shrubby than on south-facing slopes and therefore may support a substantially greater abundance of the species (Roth 1985). Known plant associates include both native and non-native species. Typical native plant associates include dune ragwort (*Senecio blochmaniae*), California sandaster (*Lessingia filaginifolia*), mock heather, buckwheat (*Eriogonum parvifolium*), eriastrum (*Eriastrum densifolium*), silver lupine (*Lupinus chamissonis*), seaside woolly sunflower (*Eriophyllum staechadidfolium*), dune almond (*Prunus fasciculata punctata*), dudleya (*Dudleya* spp.), California croton, black sage, California sagebrush (*Artemisia californica*), coyote brush, poison-oak (*Toxicodendron diversilobum*), California poppy (*Eschscholtzia californica*), and deerweed (*Lotus scoparius*) (Roth 1985; Service 2003; Roth and Tupen 2004; Dugan, personal observation 2005). The most commonly reported non-native plant associates are veldt grass and ice plant (*Carpobrotus* spp.); however, Morro shoulderband snails have been found occupying other non-native invasive plants including conicosia, pampas grass (*Cortaderia jubata*), German ivy (*Senecio mikanioides*), fennel (*Foeniculum vulgare*), and myoporum (*Myoporum laetum*) (Dugan, personal observation 2005). Live Morro shoulderband snails and vacant shells have also been found in a variety of ornamental plants including rock-rose (*Cistus* sp.), aloe (*Aloe* sp.), jade plant (*Crassula ovata*), and lilies of the Nile (*Agapanthus africanus*) (Dugan, personal observation 2005).

Morro shoulderband snails are most active during wet conditions and most feeding, reproduction, and individual growth is thought to occur during the rainy season (Roth 1985). During prolonged dry periods Morro shoulderband snails are inactive and are presumed to enter a state of aestivation (summer dormancy). The species becomes active during rain, as well as periods of heavy fog and dew. Individuals may be particularly active during the evening, night, and early morning hours when they emerge to feed and disperse to new habitats. The feeding habits of the Morro shoulderband snail are not well studied, however the mouth parts of the species are consistent with other snail species that feed on decaying matter and mycorrhizae. Hill (1974) indicated that, although feeding on decaying plant matter occurs, the primary food source for Morro shoulderband snail was probably fungal mycelia that grow on decaying plant matter. Moisture is reported as important in facilitating the feeding of Morro shoulderband snail (Service 2003). Walgren (2003) reported that the Morro shoulderband snail will eat live vegetable matter when presented in the lab, however, the species is not considered to be a garden pest (Service 2006).

At the time of listing, it was postulated that the species was restricted to sandy soils of coastal dune and coastal scrub plant communities (Roth 1973); Roth (1985) speculated perhaps as few as several hundred individuals of Morro shoulderband snail remained throughout the geographic range of the species. A very limited survey for the species conducted in 1992 did not identify any live snails (Service 1994); however, subsequent surveys associated largely with proposed development projects conducted since this time reveal the current population is more robust than previous survey results indicated. We also now know

the species occupies a diversity of both native and non-native habitats (Service files, SWCA 2013) throughout its geographic range.

## Occurrence in the Project Area

Survey results are provided for the recent 2013 survey effort, the previous protocol survey efforts conducted in 2007 and 2003, and the July 2000 habitat assessment. Three live MSS were observed during the 2013 survey; no live MSS or empty MSS shells were found during the protocol survey efforts conducted in 2003 and 2007. The 2000 habitat assessment identified one moderately weathered MSS shell near the southwest corner of the site.

2013 Survey Results: One survey was conducted in June 2013 during heavy fog conditions. The survey effort identified the presence of two live MSS, one potentially live MSS, and several empty common garden snail shells. One of the live MSS was found attached to the bottom of a plastic trash bag that was filled with dried veldt grass trimmings from past weed removal activities (refer to Photos 2 and 5). A second live MSS was found aestivating in duff under a horkelia (refer to Photo 6). These MSS were centrally located in the eastern (front) 1/3 of the parcel and among maritime chaparral that is adjacent to several coast live oak trees (refer to Figure 3). The third MSS was observed aestivating in the culms of veldt grass at the western (back) property boundary. The foot of this individual appeared to be recessed into the bottom of the shell making the shell a light tan color in the upper portions. In addition, the individual felt relatively light in weight. These characteristics may indicate that the individual was in the process of desiccating and possibly deceased. Since the shell aperture was tightly sealed and the foot could be seen through the shell, this individual was determined to be living. However, it may have been a Class A shell.

2007 Survey Results: The 2007 protocol surveys were conducted between March 20 and April 20, 2007. No live MSS or empty MSS shells were found on the property during performance of the five protocol-level surveys in 2007 (Table 1). Two live individuals and several empty shells and shell fragments of the common garden snail (*Helix aspersa*) and two live adult Big Sur shoulderband snails (*Helminthoglypta umbilicata*) were observed on the property during the surveys. Several of the Helix shells appeared to have been chewed or gnawed by rats or other small mammals. One highly weathered moon snail shell (a saltwater species) was observed in the oak woodland area during the March 27, 2007, survey effort. These surveys identified small areas of suitable native habitat for MSS along the southern and western boundaries of the property and along fringes of oak woodland areas in the eastern portion of the site.

2003 Survey Results: The 2003 protocol surveys were conducted between November 9 and December 30, 2003. No live MSS or empty MSS shells were found on the property during performance of the five protocol-level surveys in 2003 (see Table 2). Several live individuals and empty shells of the common garden snail and one live adult Big Sur shoulderband snail were observed on the property during the surveys.

2000 Habitat Assessment Results: A habitat assessment of the 2049 Andre Avenue property was conducted on July 3, 2000, by Bob Sloan of Morro Group. The assessment found suitable habitat over portions of the site, and found one empty MSS shell in the southwestern corner of the property, near scattered mock heather and ceanothus shrubs. This shell appeared moderately weathered, and was categorized as Class B, 6 months to 2 years old.

# Section 4 Biological Impacts and Take Assessment

## Direct and Indirect Impacts

During and following project implementation, take of MSS could result from the expected impacts of covered activities (noted in Section 2 above), since development will occur in and directly adjacent to suitable MSS habitat. Adverse effects may be considered either direct (occurring at the same time as the negative action, affecting individual members of the species) or indirect (situations or conditions, sometimes created by direct-impact activities, which may not have immediate impact on individuals but which have a negative impact on the species over time due to habitat, or general environmental, degradation). Due to the potential for take of Morro shoulderband snail, Richard Phillips, as owner and developer of 2049 Andre Avenue, prepared this HCP in support of his application for an ITP from the USFWS, in order to provide a step-by-step guide to minimize take and to mitigate what take does occur by positive actions taken elsewhere (see below).

Direct impacts would include being struck by equipment (including mowing or other landscaping tools) or vehicles, being stepped on by construction crew members or other project-related personnel, or being uncovered and left to desiccate in the sun.

Indirect impacts include a reduced and degraded habitat that will result from constructing a house, driveway, and parking area on the property. These changes may affect essential behavioral patterns, including general movement, breeding, feeding, and sheltering. The general environment will no longer be one of a serenely natural setting, but rather one of human activity, with the noise and ground disturbance that implies.

It is expected that the direct and indirect impacts described above will be confined primarily to the building envelope area, due to the erection of construction fencing. Of special note are those areas that will undergo earth replacement: the driveway, parking area, and building pad (especially deep replacement required) under the residence. Also impacted will be other areas within the general building envelope (ground impacted by construction). Altogether, this process will include disruption of 0.355 acre (15,462 $ft^2$) of low quality habitat and 0.025 acre (1,094 $ft^2$) of moderate quality habitat. The non-native veldt grass habitat on the parcel is considered low quality habitat because it is sparse, includes high amounts of bare ground, and provides limited shelter for MSS. Approximately 0.53 acre (22,857.4 $ft^2$) of non-native veldt grass MSS habitat occurs on the parcel. The maritime chaparral habitat on the parcel provides moderate quality MSS habitat because it includes a shade canopy with a thin layer of duff for MSS shelter and aestivation substrate. However, this habitat type is patchy on the parcel and does not provide a continuous expanse of MSS shelter. In total, there is 0.10 acre (4,339 $ft^2$) of maritime chaparral habitat available to MSS on the entire parcel. The coast live oak woodland on the parcel are not considered to be suitable MSS habitat.

Attempts to minimize adverse effects may also have negative impacts. Specifically, finding and moving individual MSS out of harm's way may unintentionally cause injury. For this reason, proper instruction by a qualified professional in seeking and spotting MSS will be required for the relevant construction and other personnel, and only the Service-approved biologist will move/relocate MSS out of harm's way to a location approved by the Service prior to the commencement of any surveys..

## Anticipated Take of MSS

As described above, past surveys have shown that the number of MSS on the project site is small and its preferred habitat limited and generally outside the construction area, so it is expected that covered

activities would have a low potential to result in take. The proposed minimization measures (pre-construction surveys, awareness training, MSS relocation, and construction oversight) to be employed would reduce the potential for take in the form of mortality but would result in take by the form of harassment associated with capture/relocation efforts. Capture and relocation efforts will only be done by the Service-approved biologist. Probable impact to suitable MSS habitat (both low and medium quality) will cover about 16,556 $ft^2$ out of 26,678 $ft^2$ on the parcel (approximately 62%).

## Effects on Critical Habitat/Recovery

The 2049 Andre Avenue site is not located within MSS critical habitat as designated on February 7, 2001 (66 FR 9233) or within a conservation planning area (i.e., *de facto* recovery unit) for the species.. For this reason, project implementation will not result in any adverse effects to critical habitat or preclude recovery of the species.

## Cumulative Impacts

In contrast with the analysis of cumulative impacts under section 7, section 10 of the Act and HCPs analyze cumulative impacts as incremental impacts of the action on the environment when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. The geographic area for analysis should be defined by the manifestation of direct or indirect impacts as a result of covered activities. Cumulative impacts under section 10 of the Act can result from individually minor but collectively significant actions taking place over a period of time.

Lands surrounding the project site currently contain residential housing with open space areas. Most of the nearby residential uses predate the listing of MSS. Historically, these developments likely removed and caused the fragmentation of MSS habitat, and likely resulted in direct mortality of MSS. As noted above, the proposed project would result in the loss of both low quality and moderate quality habitat (approximately 0.38 acre altogether), but would minimize take in the form of injury or mortality of MSS. The additional loss of habitat in a residential setting would result in a relatively minor cumulative impact when considered in relation to the adjacent land uses and previous loss of MSS habitat. Much of the surrounding vegetation includes oak trees, willows, landscaping, and ruderal areas. These habitat types provide low quality habitat for MSS. This is evident by the low number of MSS observed on the parcel during eleven protocol surveys. Considering the existing fragmentation in the area and the low number of MSS on the subject parcel, the adverse cumulative impacts of additional habitat loss can be mitigated through monetary contribution of funds to effect recovery action identified in the recovery plan (Service 1998).

## Anticipated Effects of the Taking

The take of Morro shoulderband snail that is anticipated to result from those actions necessary to implement the proposed project is considered to be insignificant in terms of the species' overall survival. The actual number of animals subject to incidental take is expected to be low (and predominantly in the form of capture), little native habitat for the species will be impacted, and the project site is located in an area that is not considered important to the recovery of species. For these reasons, the level of take of the Morro shoulderband snail that would result from the covered activities at 2049 Andre Avenue is considered negligible and would not affect the ability of the species to recover in the wild.

# Section 5 Conservation Program

## Biological Goals and Objectives

Section 10(a)(2)(A) of the Act requires that an HCP specify the measures that the permittee will take to minimize and mitigate to the maximum extent practicable the impacts of the taking of any federally listed animal species as a result of activities addressed by the plan.

As part of the "Five Point" Policy adopted by the Services in 2000, HCPs must establish biological goals and objectives (65 *Federal Register* 35242, June 1, 2000). The purpose of the biological goals is to ensure that the operating conservation program in the HCP is consistent with the conservation and recovery goals established for the species. The goals are also intended to provide to the applicant an understanding of why these actions are necessary. These goals are developed based upon the species' biology, threats to the species, the potential effects of the Covered Activities, and the scope of the HCP. The goals of this HCP are as follows:

- Minimize take of MSS in the form of injury and mortality
- Mitigate unavoidable take of MSS

## Avoidance, Minimization, and Mitigation Measures

## Avoidance Measures

Avoidance of take is not considered feasible for the proposed Phillips single-family residence project because conservation of onsite areas on a parcel of this size and in this location would not contribute to the recovery of the Morro shoulderband snail. As such, take avoidance through maintenance of onsite habitat for the species is not considered to be biologically meaningful and has not been further considered.

## Minimization Measures

**Impacts to Morro shoulderband snail and its habitat must be minimized to the maximum extent practicable:** The proposed project has been designed to minimize impacts to native vegetation on the parcel, so that the greatest impact (approximately 15,462 $ft^2$) will be on non-native, low quality habitat (sparse veldt grass), with a fairly small impact (1094 $ft^2$) on somewhat dispersed, moderate quality native habitat (maritime chaparral). In addition, the proposed project is subject to discretionary approval by the San Luis Obispo County Planning and Building Department. Issuance of building permits would require the project to be conducted in accordance with all pertinent regulations including the Federal ESA. Permit requirements and this HCP, as described below, include measures designed to minimize impacts to MSS and its habitat.

- **Pre-activity Surveys**: As permittee Richard Phillips (or legal successor in ownership) is required to retain a Service-approved biologist (i.e., a person in possession of a valid recovery permit for Morro shoulderband snail) to conduct pre-construction surveys prior to the initiation of each construction phase as a measure to minimize take of Morro shoulderband snail. The objective of pre-construction surveys is to locate as many Morro shoulderband snails as possible and move them out of harm's way. These surveys will consist of systematic searches of vegetation and objects onsite that could provide suitable shelter for Morro shoulderband snail, and the results will be presented as part of HCP reporting requirements. Such surveys will be performed after

consultation with Mr. Phillips as to exactly where on the property the relevant activity will take place.

- **Capture and Relocation of Morro Shoulderband Snails:** All live Morro shoulderband snails found during the pre-construction surveys or construction monitoring will be captured and moved out of harm's way. Any such relocation effort will be carried out by a Service-approved biologist whose recovery permit includes, as a permit condition, authorization to relocate the species. The MSS receiver site will selected by the biologist in coordination with USFWS, prior to conducting any surveys for MSS.

- **Pre-construction Environmental Awareness Training:** A Service-approved biologist knowledgeable about the Morro shoulderband snail and its habitat will conduct pre-construction training meetings for all personnel who will work onsite during construction. These meeting(s) are intended to inform construction crews, field supervisors, equipment operators, etc. about the status and presence of the species, grading and construction-activity restrictions, and the protection and minimization measures specified in the HCP.

- **Construction and General Project Oversight:** Upon completion of awareness training, pre-construction surveys, and capture and relocation, the Service-approved biologist/monitor will then be present daily in the early phases of construction to ensure that all project activities are executed so as to minimize impact to MSS and its habitat**.** Foremost among initial activities will be the installation of construction exclusion fencing which will help minimize adverse effects on MSS habitat and maintain intact MSS habitat on the parcel for breeding and foraging. Initial grading and excavation activities (e.g., clearing of vegetation, stripping of the surface soil layer, and any trenching that must be done for foundations) will also require the daily, continuous presence of the biologist. At whatever point it occurs in the development process, the biologist will coordinate with the applicant to ensure that the Morro Manzanita and oak plantings required under CEQA are installed in such a manner as to enhance existing maritime chaparral on the parcel and avoid the displacement of dune scrub species or other MSS habitat. Any live Morro shoulderband snails found during these activities will be captured and moved out of harm's way by the authorized biologist (as indicated above). This individual will have the authority to order any reasonable measure necessary to avoid the take of Morro shoulderband snail and to immediately stop any work or activity that is not in compliance with the conditions set forth in the Incidental Take permit. The Service office in Ventura will be notified of any "stop work" order and the order will remain in effect until the issue has been resolved. Upon completion of site preparation activities, the monitor will periodically visit the project site throughout the construction period (the timing to be determined by the Service-approved monitor as conditions warrant) to ensure that impacts to the project site are consistent with the project description contained in this HCP and the Incidental Take permit. During periods of rain or heavy fog/dew the monitor will conduct daily pre-activity surveys to ensure no Morro shoulderband snails have migrated into the work area. No construction work will be initiated until the monitor determines that the work area is clear of Morro shoulderband snails.

**Mitigation**

Unavoidable take of the Morro shoulderband snail will be mitigated by payment of an in-lieu fee of $8,552.00 to fund Morro shoulderband snail recovery task actions on conserved lands within the known range of the species (Table 1). The primary objective of this mitigation strategy is to facilitate the collection of data that will address recovery task needs for downlisting (and future de-listing) of the Morro shoulderband snail. Data collected will also be useful in the development of habitat management

strategies necessary to consider delisting of the species. The mitigation funding provided in this HCP is expected to facilitate (1) implementation of population surveys on conserved lands within the range of the Morro shoulderband snail; (2) the compilation and analysis of the data collected; and (3) the preparation of a final report presenting study results and Morro shoulderband snail population estimates.

A priority task entails determining the status of populations of the species present on these conserved lands. Currently there are minimal data available for estimating Morro shoulderband snail population levels on these lands. The Recovery Plan for the Morro Shoulderband Snail and Four Plants from Western San Luis Obispo County (Service 1998) specifies that downlisting of the Morro shoulderband snail can be considered when sufficient populations and suitable occupied habitats from all four Conservation Planning Areas are secured and protected. The five-year status review for the Morro shoulderband snail (Service 2006) concludes that sufficient habitat blocks have been secured and protected in order to satisfy this criterion for downlisting. This is primarily based upon existing Morro shoulderband snail population information from presence/absence surveys prompted by applications for changes in land use (e.g., residential development) or anecdotal information; neither of which provide the type of data suitable for population estimates. Activities on conserved lands do not generally trigger Morro shoulderband snail surveys; no systematic surveys have been conducted in recent years. As such, species presence, abundance, and distribution are currently unknown. On those conserved parcels where Morro shoulderband snail presence has been confirmed, little or no information exists regarding population size or long-term viability. To consider downlisting, the Recovery Plan also specifies that Morro shoulderband snail populations must be large enough to minimize the short-term (i.e., next 50 years) risk of extirpation in any of the four Conservation Planning Areas. Data suitable for population estimation would greatly improve the Service's ability to assess whether or not sufficiently large populations exist to meet this recovery criterion.

**Table 1. Conserved Parcels in the Los Osos Area**

| Assessor Parcel Number (APN) | Name | Ownership | Size (acres) | Conservation Planning Area | Critical Habitat Unit |
|---|---|---|---|---|---|
| APN 038-711-016 | BLM | BLM[1] | 4.7 | Northeast Los Osos | 3 |
| APN 038-711-016 | Powell I | CDPR[2] | 15.6 | Northeast Los Osos | 3 |
| APN 067-012-011 | Powell II | CDPR | 50.6 | Corridor Area[5] | 3[5] |
| APN 038-721-024 | Pismo | CDPR | 10.9 | -- | -- |
| APN 074-022-003 | Butte | CDPR | 18.9 | West Pecho | -- |
| APN 074-022-061 | Hotel | CDPR | 42.4 | West Pecho | 1 |
| APN 074-021-0045 | Morro Dunes Ecological Reserve(MDER) | CDFW | 47.8 | West Pecho | 1 |
| APN 074-229-022 & -023 | MDER, Bayview | CDFW | 236.9 | South Los Osos | 2 |
| APN 038-711-015 | Attman | CDPR | 11.2 | Northeast Los Osos | 3 |
| APN 038-711-004 | Garris | CDPR | ~4 | Northeast Los Osos | 3 |
| APN 074-224-019 | Los Osos Oaks | CDPR | ~90 | A[4] | -- |

[1] Bureau of Land Management
[2] California Department of Parks and Recreation, San Luis Obispo Coast
[3] California Department of Fish and Wildlife
[4] Designated as "Other Habitat Area" in Recovery Plan
[5] A portion within Critical Habitat

At 2049 Andre Avenue, approximately 0.355 acre (15,462 $ft^2$) of low quality habitat (sparse veldt grass) would be impacted. This impact would be mitigated by an in-lieu fee payment of $7,731 (15,462 $ft^2$ X $0.50/ $ft^2$). Approximately 0.025 acre (1,094 $ft^2$) of moderate quality habitat (maritime chaparral) would be impacted. This impact would be mitigated by an in-lieu fee of $821 (1,094 $ft^2$ X $0.75/$ft^2$). Thus, to off-set take of MSS and impacts to its habitat that would result from both the first and second phases of the project, the total in-lieu fee payment would be $8,552. It should be noted that one of the requirements for qualifying for the in-lieu fee program is that the project would not result in take of any other state- or federally-listed species. Two plant species, Morro Manzanita and coast live oak, have been identified on the parcel, and conditions have been stipulated in the Minor Use Permit for their onsite conservation. However, neither plant species is listed by the State of California and while one of them, Morro Manzanita, is a federally listed species, there is no take prohibition for federally listed plants. Therefore, the proposed project would not result in the take of any other state- or federally-listed species.

## Monitoring

Monitoring tracks compliance with the terms and conditions of the HCP and permit. There are three types of monitoring: (1) compliance monitoring to track the permit holder's compliance with the requirements specified in the HCP and permit; (2) effects monitoring to track the impacts of the covered activities on the covered species; and (3) effectiveness monitoring to track the progress of the conservation strategy in meeting the HCP's biological goals and objectives, including species surveys, reproductive success, etc. Monitoring provides information for making adaptive management decisions. A Service-approved biologist knowledgeable about the Morro shoulderband snail and its habitat will be retained to conduct monitoring activities.

There are three types of monitoring which apply to this project:

1) Compliance Monitoring: The applicant will retain a Service-approved MSS biologist to conduct compliance monitoring during the construction of the project. This monitoring biologist will ensure that the required minimization measures, such as protective fencing, environmental training, and construction monitoring, are implemented. Compliance monitoring will be conducted daily during initial disturbance activities including vegetation removal and rough grading. Following completion of the initial disturbance activities, the Service-approved biologist will conduct periodic compliance monitoring visits throughout the duration of covered activities. Monitoring may increase, as deemed necessary by the Service-approved biologist, depending on weather conditions and project activities.

Following completion of construction, the Service-approved biologist will conduct annual monitoring visits to document compliance with the ITP. Compliance monitoring results will be documented on Daily Monitoring Reports and reported to the Service in the annual reports for the project.

2) Effects Monitoring: The Service-approved biologist will document the number of MSS captured and relocated, the amount of mortality observed, and the loss of MSS habitat based on as-built disturbances. The Service will be notified of observed mortality via e-mail within 48 hours of the observation. All other effects will be documented in the project's annual and final reports.

3) Effectiveness Monitoring tracks the progress of the conservation strategy in meeting the HCP's biological goals and objectives; it seeks to answer the question, could we be doing better to achieve our goals? The Service-approved biologist will monitor the project site throughout the permit term to evaluate the success or failure of the stated goals and objectives. Effectiveness Monitoring during construction will evaluate whether or not the minimization strategies successfully reduced the anticipated impacts to the extent feasible. Post construction Effectiveness Monitoring will evaluate whether or not

the permit conditions and minimization efforts were successful at meeting the stated goals and objectives in the long term. Effectiveness Monitoring results will be included in all annual reports.

Access to Project Site

The permittee(s) will allow a representative from the Service access to the project site to monitor compliance with the conditions of the ITP.

## Adaptive Management Strategy

For some HCPs, the adaptive management strategy will be an integral part of an operating conservation program that addresses the uncertainty in the conservation of a species covered by an HCP. Adaptive management should identify and address the uncertainty, incorporating a range of previously agreed-upon alternatives for addressing those uncertainties, integrating a monitoring program that detects the necessary information, and incorporating a feedback loop that links implementation and monitoring to a decision-making process that results in appropriate changes in management. Adaptive management should help the permittee achieve the biological goals and objectives of the HCP.

Every effort will be made to ascertain whether or not the efforts to minimize MSS take are working. The basis for this judgment will be the assessments recorded through the mechanisms of Effectiveness Monitoring described above. The permittee and the Service-approved biologist will determine whether damage to MSS habitat is consistent with what would be expected, given the nature of the work involved. As the tool used to both implement and record Effectiveness Monitoring, the daily log is designed to quickly alert the permittee and biologist to problems or potential problems. If so alerted, the permittee, in consultation with the biologist, will decide on the steps necessary to get proper implementation of the HCP back on track.
A number of corrective strategies may be considered, including:

- improved or additional training given to construction and other personnel;
- increasing pre-activity surveys;
- more frequent visits by the biologist; or
- avoiding certain work, or all work, during especially wet periods.

## Reporting

Annual Reports will be submitted to the Service by December 31 each year and include: (1) a brief summary or list of project activities accomplished during the reporting year (e.g., this includes development/construction activities, and other covered activities); (2) project impacts (e.g. number of acres graded, number of buildings constructed, etc.); (3) a description of any take that occurred for each covered species (includes cause of take, form of take, take amount, location of take and time of day, and deposition of dead or injured individuals); (4) a brief description of conservation strategy implemented; (5) results of monitoring results (compliance, effects and effectiveness monitoring) and survey information (if applicable); (6) a description of circumstances that made adaptive management necessary and how it was implemented; (7) a description of any changed or unforeseen circumstances that occurred and how they were addressed; (8) all funding expenditures, balance, and accrual; and (9) a description of any minor or major amendments.

In order to prepare the annual report described above, and to provide an ongoing and up-to-date data base of information should the need for intermediate reporting to USFWS arise, or reinvigorated minimization

efforts be required, a daily log will be maintained. It is to be filled out, one sheet or more per day as required by the progress of covered activities, and it will track all of the information that will be required in the annual report.

The USFWS-approved biologist will have the responsibility of implementing the minimization measures, including MSS capture and relocation; installation of exclusion fencing; and reporting, including filling out the daily log. Richard Phillips, as permittee and individual primarily responsible for construction, will also provide input to the daily log should he make a relevant observation, especially after the initial construction phase when the biologist is no longer present on a daily basis. A copy of the log will always be at the construction site, though once filled out it may be taken by the biologist and cumulated in monthly or other convenient intervals, all aimed at providing a solid basis for the annual report. The information gathered will also provide a current and complete record of observations should a special notification of USFWS be necessary, as for example in the case of a changed circumstance, or a "stop work" order issued by the biologist.

# Section 6 Plan Implementation

## Changed Circumstances

Section 10 regulations [(69 *Federal Register* 71723, December 10, 2004 as codified in 50 Code of Federal Regulations (C.F.R.), Sections 17.22(b)(2) and 17.32(b)(2))] require that an HCP specify the procedures to be used for dealing with changed and unforeseen circumstances that may arise during the implementation of the HCP. In addition, the HCP No Surprises Rule [50 CFR 17.22 (b)(5) and 17.32 (b)(5)] describes the obligations of the permittee and the Service. The purpose of the No Surprises Rule is to provide assurance to the non-Federal landowners participating in habitat conservation planning under the Act that no additional land restrictions or financial compensation will be required for species adequately covered by a properly implemented HCP, in light of unforeseen circumstances, without the consent of the permittee.

Changed circumstances are defined in 50 CFR 17.3 as changes in circumstances affecting a species or geographic area covered by an HCP that can reasonably be anticipated by plan developers and the Service and for which contingency plans can be prepared (e.g., the new listing of species, a fire, or other natural catastrophic event in areas prone to such event). If additional conservation and mitigation measures are deemed necessary to respond to changed circumstances and these additional measures were already provided for in the plan's operating conservation program (e.g., the conservation management activities or mitigation measures expressly agreed to in the HCP or IA), then the permittee will implement those measures as specified in the plan. However, if additional conservation management and mitigation measures are deemed necessary to respond to changed circumstances and such measures were not provided for in the plan's operating conservation program, the Service will not require these additional measures absent the consent of the permittee, provided that the HCP is being "properly implemented" (which means the commitments and the provisions of the HCP and the IA (if applicable) have been or are fully implemented).

Changed circumstances that might occur, and their implications to a project already covered by a HCP, include the following:

Fire

Wildfires are common occurrences in central California, and are part of the natural ecology of native scrub habitats. Wildfires within the permit boundaries would be expected to remove vegetation

necessary to the life cycle of MSS as well as to directly injure or kill individual MSS. Scrub habitat is adapted to this type of disturbance, and early successional plants quickly grow in burned areas. Burns can also open habitat for invasive, non-native weedy species, which can invade and overtake the burned area. If a wildfire occurs in the project area during the course of the permit, the permittee will contact the Service to determine appropriate measures, which may include revegetation efforts to reestablish native vegetative cover if such a procedure is deemed beneficial.

Drought

A drought situation, if it were adversely affecting MSS habitat, would be responded to with irrigation to the affected habitat.

New listing of a species already present on the property or a newly discovered previously listed Species on the property

Immediately upon the identification of a newly listed species on the property, the permittee will contact the Service to determine if an amendment to the ITP is necessary and what additional actions may be required. In the event that one or more other already listed species is discovered at the project site during the term of the permit, the permittee will cease project activities that are likely to result in take and work with the Service to develop a permit amendment to address said species. For this particular project, it is extremely unlikely that any other listed species will be discovered at the project site due to the small size and location of the parcel and limited habitat area.

## Unforeseen Circumstances

Unforeseen circumstances are defined in 50 CFR 17.3 as changes in circumstances that affect a species or geographic area covered by the HCP that could not reasonably be anticipated by plan developers and the Service at the time of the HCP's negotiation and development and that result in a substantial and adverse change in status of the covered species. The purpose of the No Surprises Rule is to provide assurances to non-Federal landowners participating in habitat conservation planning under the Act that no additional land restrictions or financial compensation will be required for species adequately covered by a properly implemented HCP, in light of unforeseen circumstances, without the consent of the permittee.

In case of an unforeseen event, the permittee will immediately notify the Service staff that have functioned as the principal contacts for the proposed action. In determining whether such an event constitutes an unforeseen circumstance, the Service will consider, but not be limited to, the following factors: size of the current range of the affected species; percentage of range adversely affected by the HCP; percentage of range conserved by the HCP; ecological significance of that portion of the range affected by the HCP; level of knowledge about the affected species and the degree of specificity of the species' conservation program under the HCP; and whether failure to adopt additional conservation measures would appreciably reduce the likelihood of survival and recovery of the affected species in the wild.

If the Service determines that additional conservation and mitigation measures are necessary to respond to the unforeseen circumstances where the HCP is being properly implemented, the additional measures required of the permittee must be as close as possible to the terms of the original HCP and must be limited to modifications within any conserved habitat area or to adjustments within lands or waters that are already set aside in the HCP's operating conservation program. Additional conservation and mitigation measures will involve the commitment of additional land or financial compensation or

restrictions on the use of land or other natural resources otherwise available for development or use under original terms of the HCP only with the consent of the permittee.

## Amendments

**Minor Amendments:** Minor amendments are changes that do not affect the scope of the HCP's impact and conservation strategy, change amount of take, add new species, and change significantly the boundaries of the HCP. Examples of minor amendments include correction of spelling errors or minor corrections in boundary descriptions. The minor amendment process is accomplished through an exchange of letters between the permit holder and the Service's Field Office.

**Major Amendments:** Major amendments to the HCP and permit are changes that do affect the scope of the HCP and conservation strategy, increase the amount of take, add new species, and change significantly the boundaries of the HCP. Major amendments often require amendments to the Service's decision documents, including the NEPA document, the biological opinion, and findings and recommendations document. Major amendments will often require additional public review and comment.

## Permit Suspension or Revocation

The Service may suspend or revoke their respective permits if Richard Phillips fails to implement the HCP in accordance with the terms and conditions of the permits or if suspension or revocation is otherwise required by law. Suspension or revocation of the Section 10(a)(1)(B) permit, in whole or in part, by the Service will be in accordance with 50 CFR 13.27-29, 17.32 (b)(8).

## Permit Renewal

In the case of the project at 2049 Andre Avenue, there are two possible reasons why the Incidental Take permit might need to be renewed at the end of the proposed permit period. First, the Phase 1 construction might not be finished. Second, and more likely, the Phase 1 construction might be complete, but not Phase 2.

Because of the uncertainty regarding the beginning of Phase 2, it is possible that one renewal of the ITP could be necessary and, as such, the applicant requests that any issued permit be considered renewable.

The ITP permit may be renewed provided that the permit is renewable and that biological circumstances and other pertinent factors affecting covered species are not significantly different than those described in the original HCP. To renew the permit, Richard Phillips shall submit to the Service, in writing: (1) a request to renew the permit; reference to the original permit number; (2) certification that all statements and information provided in the original HCP and permit application, together with any approved HCP amendments, are still true and correct, and inclusion of a list of changes; (3) a description of any take that has occurred under the existing permit; and (4) a description of any portions of the project still to be completed, if applicable, or what activities under the original permit the renewal is intended to cover. These materials must be received ***at least*** 30 days prior to the expiration date of the original permit in order for the permit to remain valid while the renewal is being processed.. If the renewal application is not received at least 30 days prior to permit expiration, the permit will become invalid upon expiration and a new permit application will be necessary.

### Permit Transfer

It is not inconceivable that the owner of 2049 Andre Avenue, Richard W. Phillips, would find it necessary to sell the property, even after having obtained an ITP. In such a situation, the ITP would need to be transferred to the new owner. The rules governing such a transfer are described below.

In the event of a sale or transfer of ownership of the property during the life of the permit, the following will be submitted to the Service by the new owner(s): a new permit application, permit fee, and written documentation providing assurances pursuant to 50 CFR 13.25 (b)(2) that the new owner will provide sufficient funding for the HCP and will implement the relevant terms and conditions of the permit, including any outstanding minimization and mitigation. The new owner(s) will commit to all requirements regarding the take authorization and mitigation obligations of this HCP unless otherwise specified in writing and agreed to in advance by the Service.

## Section 7 Funding

| Item/Activity *(Implemented by)* | Unit Cost | One-Time Cost | Re-occurring Costs | Total |
|---|---|---|---|---|
| **MSS Surveys and Construction Monitoring (Assumed 12 months)** | | | | |
| 300 linear feet of Temporary fencing | $4.50/lf | $1,350 | n/a | $1,350 |
| Pre-construction survey and MSS Capture and Relocation | $105/hour | $630 | up to 2 events | $1,260 |
| Worker Awareness Training | $105/hour | $105 | up to 4 events | $420 |
| Initial Disturbance Construction monitoring | $105/hour | $1,050 | up to 2 visits | $2,100 |
| Construction Compliance Monitoring and Reporting (Assumed 12 Months) | $105/hour | $210 | up to 26 visits | $5,460 |
| *Subtotal* | | | | *$10,590* |
| **Mitigation** | | | | |
| In-lieu Fee | $8,552 | $8,552 | n/a | $8,552 |
| ***Subtotal*** | | | | ***$8,552*** |
| **Post-construction Monitoring and Reporting** | | | | |
| Annual Site Visits | $105/hour | $315 | Up to 10 visits | $3,150 |
| Annual Reports | $105/hour | $420 | Up to 9 reports | $3,780 |
| Final Monitoring Report (Year 10) | $105/hour | $840 | n/a | $840 |
| ***Subtotal*** | | | | ***$7,770*** |
| **Changed Circumstances *(Permittees)*** | | | | |
| Contingency for Remedial Actions | $1,000 | | n/a | $1,000 |
| ***Subtotal*** | | | | ***$1,000*** |
| **ESTIMATED TOTAL COST OVER THE PERMIT TERM** | | | | **$27,912** |

### Funding Source

Mr. Phillips, as the permittee, will be responsible for the full cost of implementing all aspects of this HCP, including the Conservation Strategy, all monitoring and reporting requirements, and any costs associated with accommodating the changed circumstances described above or those changes brought about by an "adaptive management" review. He understands that failure to provide adequate funding and/or failure to implement the terms of this HCP in full could result in temporary permit suspension or permit revocation. A copy of the receipt for payment of the in-lieu fee will be provided to the Ventura Fish and Wildlife Office and the County as a condition of the issuance of any/all necessary permits associated with project implementation.

## Section 8 Alternatives

Section 10(a)(2)(A)(iii) of the Endangered Species Act of 1973, as amended, [and 50 CFR 17.22(b)(1)(iii) and 17.32(b)(1)(iii)] requires that alternatives to the taking of species be considered and reasons why such alternatives are not implemented be discussed.

In designing the project at 2049 Andre Avenue, every effort has been made to minimize its impact on the existing plant life and, by extension, MSS habitat. It would seem that the only alternative would be not to build at all. Given that the parcel and the MSS population thereon is relatively small and, as noted elsewhere, not a significant factor in the overall health and survival of the species, and that the project will be contributing money to species recovery where it really counts (critical areas with significant numbers of MSS), one might conclude that this project will be a net plus for MSS recovery.

### No Action Alternative

Under this alternative, an ITP for the Phillips single-family residence would not be issued. The single-family residence would not be built and a contribution of $8.552 in-lieu fees would not be made to effect recovery actions for Morro shoulderband snail. Since the property is privately owned, there are ongoing economic considerations associated with continued ownership of a property without its intended use (e.g., payment of property taxes). The sale of the properties for purposes other than the identified activity is not economically feasible. Because of economic considerations and because the proposed action results in a net benefit for the covered species, Morro shoulderband snail, the No Action Alternative has been rejected.

### Project Redesign

This alternative would involve design of a project that would reduce or avoid altogether take of Morro shoulderband snail. A reduction or redesign of the project footprint would not meet the applicants' needs and would not significantly reduce take of Morro shoulderband snail such that there would be a greater benefit to the species. For these reasons, the project redesign alternative is also rejected.

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**Table 1. 2007 Survey Dates, Time, and Findings**

| Survey Number | Survey Date and Time | Rainfall Activity | Temp. | Findings | Biologist |
|---|---|---|---|---|---|
| 1 | 3/20/07<br>4-5 PM | Rain during survey, 0.33 inches during the day. | 54ºF | No live MSS or empty shells found. 2 live Big Sur shoulderband snails found in oak woodland area. Several partially eaten Helix shells found along northern property boundary. Soil and duff very wet. | Sloan, Belt |
| 2 | 3/27/07<br>8:30-10:30 AM. | Sunny, windy, 0.15 inches previous eve. | 59ºF | No live MSS or empty shells found. Helix shell fragments, and a moon snail shell found in oak woodland area. Soil and duff wet | Sloan |
| 3 | 4/11/07<br>12:30-1:30 PM | Cloudy, 0.05 inches earlier in day | 61ºF | No live MSS or empty shells found on the site. 1 live Helix found at western end of site. Soil and duff dry during survey. | Sloan |
| 4 | 4/15/07<br>11-12 AM | Trace of rain overnight | 60ºF | No live MSS or empty shells, or other snails observed on the site. Soil and duff dry during survey. | Sloan |
| 5 | 4/20/07<br>9-10:15 AM | Cloudy, 0.25 inches in previous 8 hours | 58ºF | No live MSS or empty shells found on the site. 1 live Helix found in middle of site. Soil and duff very wet. | Sloan |

*Helix* = Common brown garden snail

**Table 2. 2003 Survey Dates, Time, and Findings**

| Survey Number | Survey Date and Time | Rainfall Activity | Temp. | Findings | Biologist |
|---|---|---|---|---|---|
| 1 | 11/9/03<br>6:45-7:45 AM | Showers during survey, 0.35 inches in previous 24 hours | 59ºF | No live MSS or empty shells found. Slugs, live Helix and several partially eaten Helix shells present. | Sloan |
| 2 | 12/7/03<br>9:30-10:30 AM | Light rain during survey, 0.15 inches in previous 24 hours. | 61ºF | No live MSS or empty shells found. Live Helix and shells observed in Manzanita. | Sloan |
| 3 | 12/14/03<br>9-10 AM | Light rain during survey, 0.35 inches in previous 24 hours. | 58ºF | No live MSS or empty shells found. 1 live Big Sur shoulderband snail found under oak trees. Several slender salamanders observed in oak duff. | Sloan |
| 4 | 12/21/03<br>8:30-9:30 AM | Cloudy, 0.3 inches in previous 24 hours. | 60ºF | No live MSS or empty shells found. Slugs, live Helix and shells observed. | Sloan |
| 5 | 12/30/03<br>11 AM-12 PM | Cloudy, 0.7 inches in previous 24 hours. | 61ºF | No live MSS or empty shells found. Live Helix and shells present. | Sloan |

*Helix* = Common brown garden snail

**Figure 1. Project Vicinity Map**

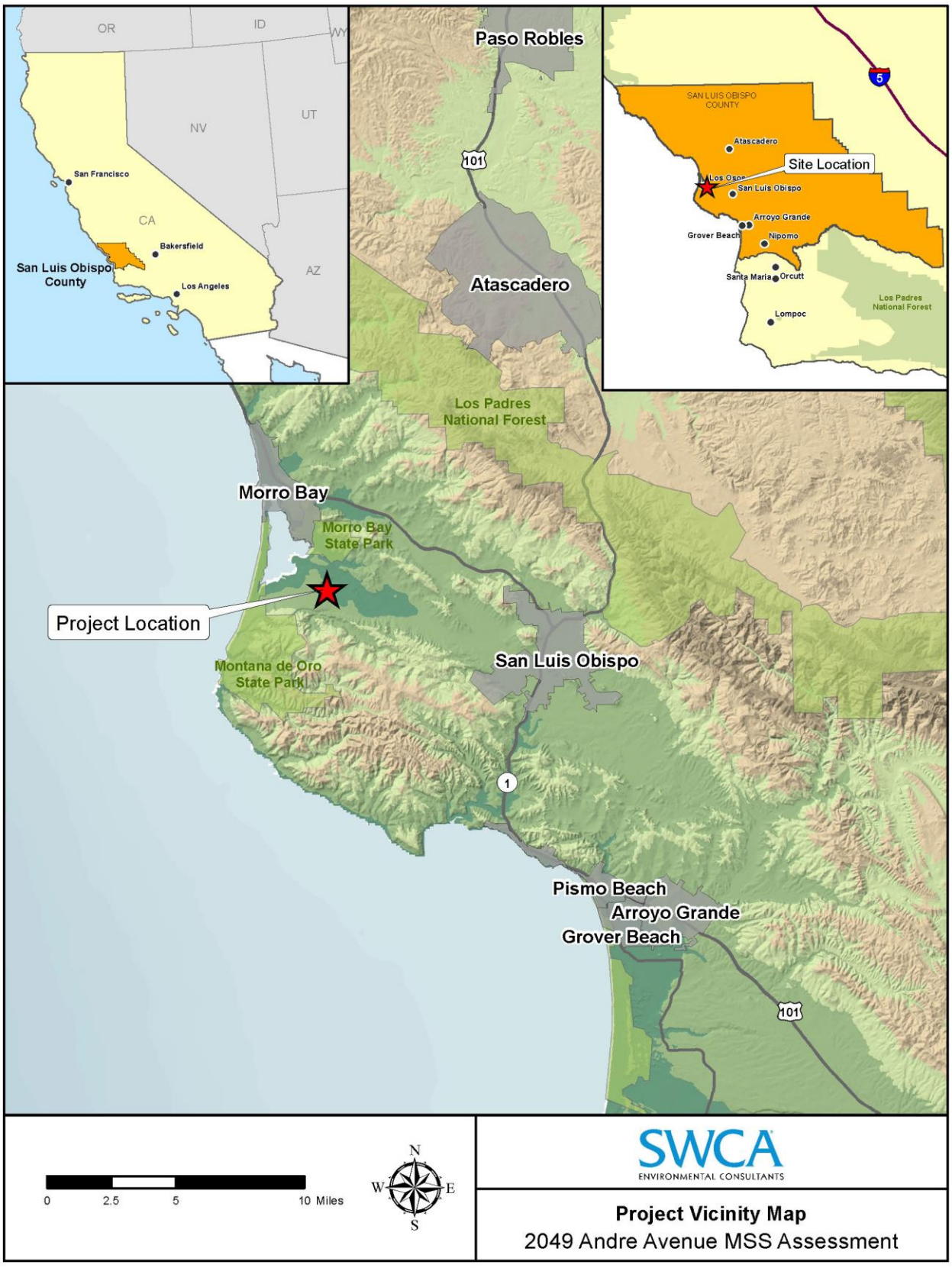

**Figure 2. Project Location Map**

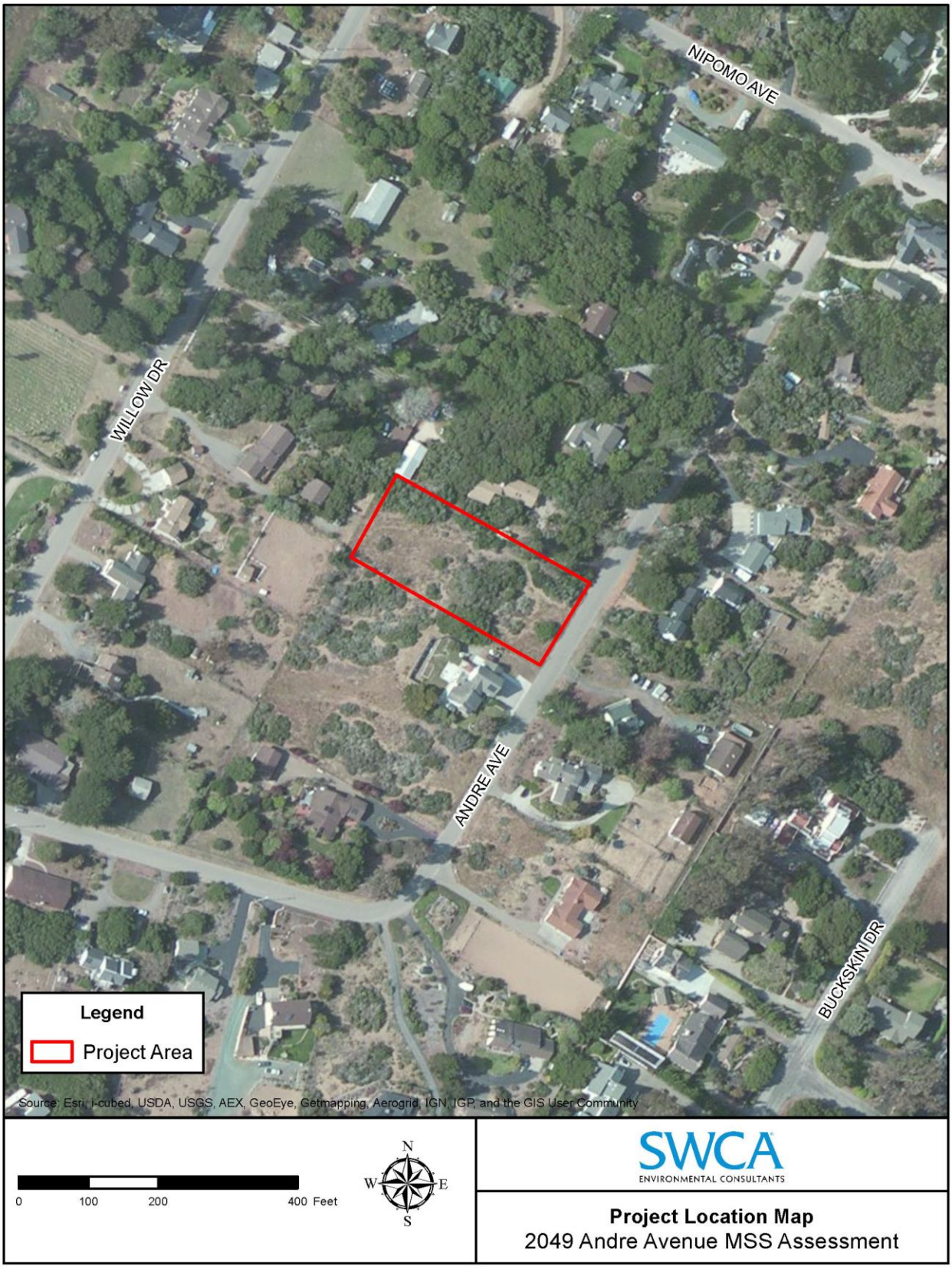

Figure 3: MSS Occurrence and Habitat Map

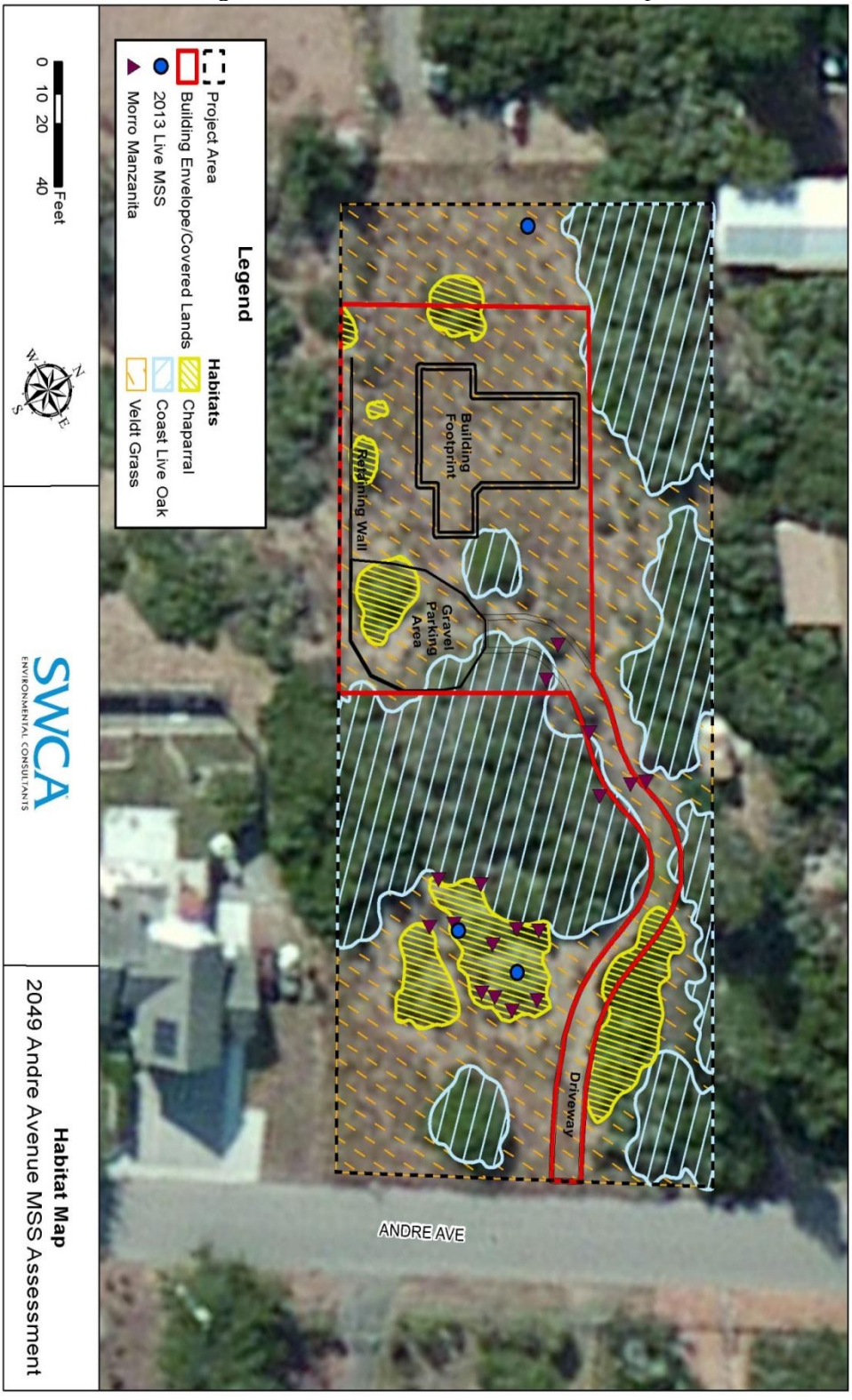

**PHOTO 1:**

View looking west towards the front of the parcel on Andre Avenue.

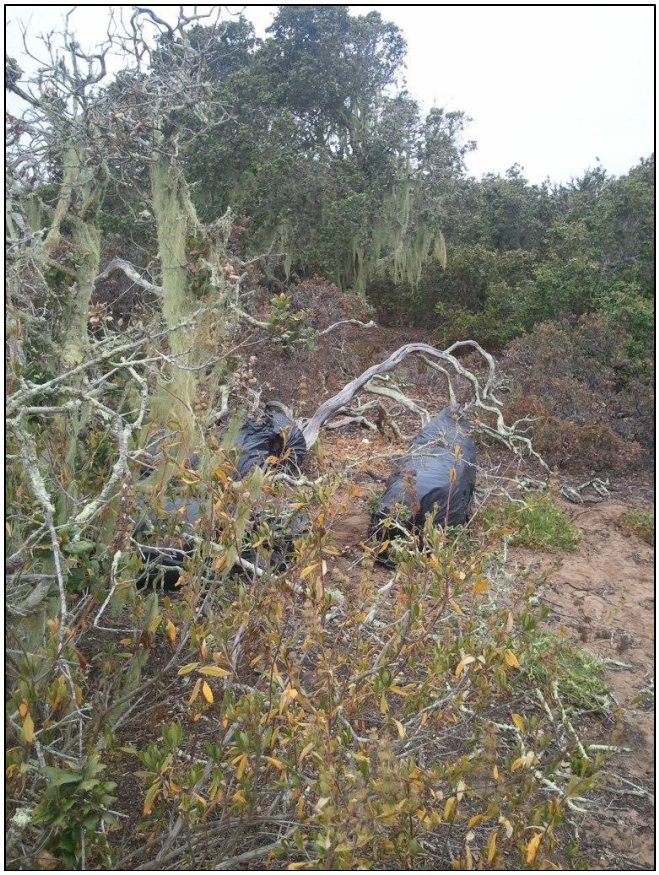

**PHOTO 2:**

View of the oak and chaparral ecotone centrally located on the parcel. Live MSS were observed in this location

**PHOTO 3:**

View looking east over the proposed home site.

**PHOTO 4:**

View looking west over the proposed home site.

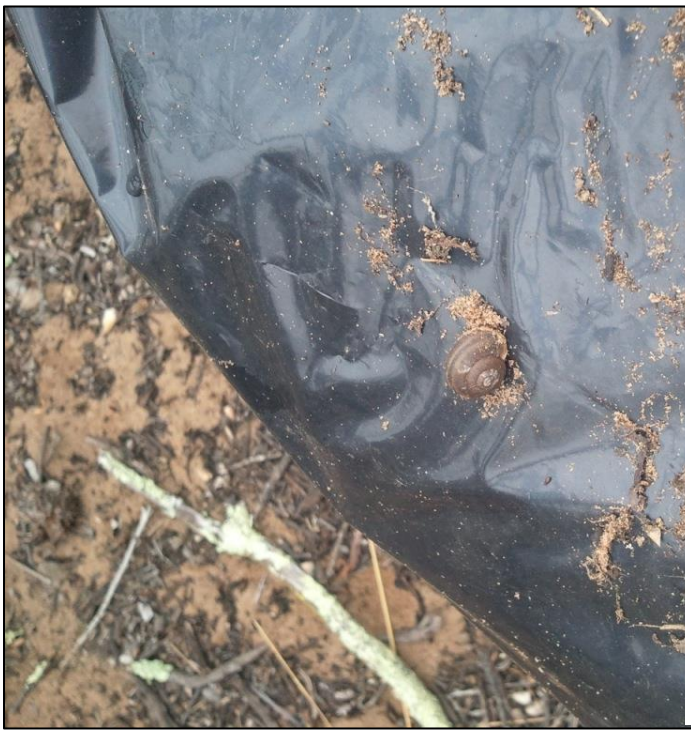

**PHOTO 5:**

View of a live MSS that was observed aestivating on a plastic bag located in the chaparral in the central portion of the parcel (see Photo 2)

**PHOTO 6:**

View of a live MSS observed aestivating in duff under a horkelia.